AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A permanent magnet electric motor comprising:

a rotor having an upper stage permanent magnet and a lower stage permanent magnet provided in an axial direction on an outer circumferential face of a rotor iron core, and said lower stage permanent magnet shifted from said upper stage permanent magnet by a first stage skew angle θr with respect to a center line passing through said upper and lower stage permanent magnets, to decrease a first frequency component of a cogging torque in a circumferential direction of said rotor iron core;

a stator iron core of cylindrical shape provided with a stator winding for producing a rotating magnetic field causing said rotor to be rotated; and

said stator iron core divided into plural blocks in the axial direction, and shifted by a second stage skew angle θs to decrease a second frequency component of said cogging torque in a circumferential direction of said stator iron core,

wherein, when the axial length of said stator iron core is Lc (m), and a theoretical angle of said first stage skew angle $\theta r(°)$ is an electrical angle $\theta t(°)$, the following expression is satisfied,

θt = (360°/least common multiple of the number of stator magnetic poles and the number of rotor magnetic poles)/2　..(1)

$$\theta t<\theta r<(700\times10^{3}/Lc+\theta t)\underline{\theta t<\theta r<(700\times10^{-3}/Lc+\theta t)} \qquad ..(2).$$

Claim 2 (canceled).

3. (previously presented): The permanent magnet electric motor according to claim 1, wherein said stator iron core is divided into a first, second and third stator block in the axial direction; and

said second stage skew angle θs is provided between said first stator block and said second stator block, and between said second stator block and said third stator block.

4. (previously presented):The permanent magnet electric motor according to claim 3, wherein a clearance Lcg is provided between said first stator block and said second stator block, and between said second stator block and said third stator block, such that an inequality $0<Lcg<2.2gm$ is satisfied, where gm is a gap between said stator and said rotor.

5. (previously presented): The permanent magnet electric motor according to claim 1, wherein said stator iron core is divided into a first, second, third and fourth stator block in the axial direction; and

said second stage skew angle θs is provided between said first stator block and said second stator block, between said second stator block and said third stator block, and between said third stator block and said fourth stator block.